THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

OPTIS WIRELESS TECH., LLC, ET AL.,

    Plaintiffs,

    v.

HUAWEI TECHS. CO. LTD., ET AL.,

    Defendants.

No. 2:17-cv-123 JRG-RSP

JURY TRIAL REQUESTED

HUAWEI'S BRIEF IN SUPPORT OF FINDING CLAIM 14 OF THE '293 PATENT IS DIRECTED TO AN ABSTRACT IDEA

Pursuant to the Court's August 19, 2018 order, Huawei submits this brief in support of a finding that claim 14 of U.S. Patent No. 8,437,293 (the "'293 Patent") is directed to an abstract idea under step 1 of the *Alice* test.

Dependent Claim 14 of the '293 Patent is directed to the abstract idea of scheduling resources in a telecommunications network. '293 Patent, 1:12-19. The claim's collection of logical conditions amounts to nothing more than "routing information using result-based functional language," which the Federal Circuit has already determined is an abstract idea. *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017). "[E]ven if performed on a computer," scheduling resources (whether for telecommunications or otherwise) is an abstract idea because it is a "conventional business practice[]."[1] *See Enfish*

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[1] Scheduling resources is a conventional business practice used in telecommunications networks and refers to the negotiation and allocation of resources available in a telecommunications transmission medium (e.g., wireless spectrum, lengths of copper wire, etc.) between computers in a telecommunications network. This is accomplished through the exchange of information regarding the resources needed to transmit a communication (e.g., the size or length of the

LLC., v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016); *Cellular Commc'ns Equip. LLC v. AT&T*, No. 2:15-cv-00576-RWS-RSP, 2017 WL 2984074, at *1, *3 (E.D. Tex. June 27, 2017) (finding claims directed to the abstract idea of "calculating and reporting the missing power of a network device," which is used by the network to "reallocate network resources"). Scheduling resources is "an abstract concept long utilized to transmit information." *Cf. RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (claims directed to the "abstract idea of encoding and decoding image data").

Under step 1 of the *Alice* test, the inquiry is whether, "considering [its] character as a whole," the claim is "directed to generalized steps to be performed on a computer using conventional computer activity." *Two-Way Media*, 874 F.3d at 1337. If so, step 1 of *Alice* is satisfied. The claims of *Two-Way Media* are illustrative. The claims there recited generic functional limitations related to "processing," "forwarding," "verifying," and "updating" data and communications in a "communications network." *Id.* at 1335. The claims were directed to ineligible subject matter because they did "not sufficiently describe how to achieve these results in a non-abstract way." *Id.* at 1337. Here, the same is true of dependent claim 14. The independent claim 12 from which it depends recites a generic "transmit buffer" and "data processor." The '293 Patent does not purport to have invented a transmit buffer or data

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communication, its importance, etc.) and the resources that are available for use. Scheduling resources has been prevalent in telecommunications networks for decades, if not centuries. Early examples of scheduling can be seen in early radio and telegraph technology where human operators used procedural signs and symbols to indicate the quantity, priority, and other aspects of intended transmissions prior to the messages being transmitted themselves. The recipient of these procedural signs would respond with a message indicating that the transmission could proceed if resources were available, and denied if they are not. As telecommunications networks became more advanced, scheduling began to be handled via infrastructure equipment, such as the "No. 5 Electronic Switching System," which allocated trunk lines for individual long distance calls. If a resource was not available, the party initiating the call would hear a busy signal. *See* Ex. 1, Expert Report of Dr. Harry Bims Regarding Invalidity of the '293 Patent, ¶¶ 37-49.

processor. There is nothing in the specification that indicates that these components are implemented in a non-generic manner. Claim 14 "is not directed to any particular structural configuration, but simply recites two well-known components already used in more conventional implementations of" scheduling resources in a telecommunications network. *Cellular Commc'ns*, 2017 WL 2984074, at *3. "[T]he focus of [the] claim . . . is not an improvement to the processor and transmit[buffer] as tools, but on an independently abstract idea that uses the processor and transmit [buffer] as tools." *Id.*

Turning to the functional limitations of the claims, claim 12, upon which claim 14 depends, requires the transmission of a "first scheduling request (SR) . . . in response to" the arrival of data in an "empty transmit buffer." This is just a logical condition (i.e., the arrival of data in a buffer) that triggers the transmission of data (i.e., the first SR). It is performed by a generic "data processor" and the specification makes clear that this step was already known before the patent's priority date. '293 Patent, 2:22-25 ("each active UE is assigned a dedicated channel to for transmitting messages that indicate to the eNodeB that the UE requires a UL resource. Such a message is referred to as a 'Scheduling Request'"); 2:52-53 ("a UE . . . having data to transmit . . . first transmits an SR"); *see also* 8:26-28 ("the UE determines whether it has data to send to the eNodeB (e.g., the UE determines whether its transmit buffer is empty)"). This limitation is simply about achieving a result in an abstract way.

The next limitation fares no better. It requires the same generic "data processor" to "transmit . . . transmit buffer status information in response to receiving a scheduling grant (SG)." Again, this merely recites the use of a logical condition to transmit information about a mobile terminal's scheduling needs and resource availability. Like the previous limitation, the "transmit buffer status information" and the "scheduling grant" were well-known data

communications concepts before the patent's priority date. '293 Patent, 2:30-34 ("[i]n response

to receiving than SR . . . the scheduler . . . may issue a scheduling grant . . . [t]hat is the scheduler

may select the resources . . . the UE shall use and communicate this information to the UE");

2:44-50 ("[a]fter transmitting an initial SR, the UE may transmit a more detailed buffer status

report . . . [i]t is a common view in . . .3GPP that the buffer status report should contain more

information than is contained in the initial SR").[2] Thus, this limitation is also about achieving a

result in an abstract way.

The final limitations of claim 12 – "scheduling request triggering event" and transmitting

a "second SR" – are also directed to the same abstract idea of scheduling resources in a

telecommunications network. As construed by the Court, the "scheduling request triggering

event" is simply an abstract logical condition used to initiate the next step of the scheduling

process, at a particular period of time. *See* Dkt. 108 at 37-38 (construing the term to mean "a

predefined condition that triggers a scheduling request" and rejecting Defendants' construction

to limit "scheduling request triggering event to 'a change to the buffer status information'").

Claim 12 covers any possible predefined condition and is not limited to "a specific

implementation of a solution to a problem in" telecommunications. *See Enfish*, 822 F.3d at

1339. The claim as so construed is so abstract it does not even capture what the patent itself

states is necessary to solve the alleged problem in the prior art. '293 Patent, 6:10-12

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[2] The Court has already found that the '293 Patent admits that transmitting an SR, receiving an
SG, and transmitting buffer status information in that particular sequence were known before the
priority date of the '293 Patent. *See* Dkt. 114 at 4-5 ("[T]he '293 Patent describes that it is
known in the prior art that when a transmit buffer of a mobile terminal has information to send,
the mobile terminal may send a scheduling request (SR) to the base station. The base station may
then assign resources to the mobile terminal over which to transmit the data by sending a
scheduling grant (SG) to the mobile terminal. After the grant of resources, the mobile terminal
may also send a buffer status report that contains more information on the buffer status than
included in the scheduling request.").

("Embodiments of the present invention define an alternative SR triggering mechanism that is based on **changes in transmit buffer status**. With such an alternative triggering mechanism, the problems described above can be solved") (emphasis added); *cf. Berkheimer v. HP Inc.*, 881 F.3d 1360, 1370 (Fed. Cir. 2018) (finding claims patent ineligible because they did not "capture the purportedly inventive concepts"). As with the other limitations, the generic "data processor" executes software to perform the recited scheduling and transmitting functions. The processor does not become a new or different processor as a result. It is simply a tool used to reach a result in an abstract way.

Claim 14 fares no better than claim 12. It simply requires the "scheduling request triggering event" to "determin[e] whether second data that became available for transmission to the base station after the first SR was transmitted has a higher priority than the first data." Even with this limitation, claim 14 just recites an abstract logical algorithm by which to trigger another step in the scheduling-negotiation process. The patent does not purport to invent or improve upon the abstract and ancient concept of "priority" and scheduling resources based on a change in priority. This abstract idea is not unique to the '293 Patent. For example, a patient will contact a doctor to request an additional or earlier visit if his or her symptoms get worse because the deterioration changes the priority of treating that condition. Much like this real-world example, claim 14 implements the same well-understood process in the context of prioritizing data in a transmission buffer. It does so in the most generic of ways, based solely on whether the second data has "higher priority than the first data." Thus, claim 14 is not "directed to a specific implementation of a solution to a problem in the software arts" and fails to survive scrutiny under Step 1 of the *Alice* test. *See Enfish*, 822 F.3d at 1339.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of the foregoing document via the Court's CM/ECF system per Local Rule CV-5(a)(3) this 21st day of August 2018.

/s/ *Stanley Young*